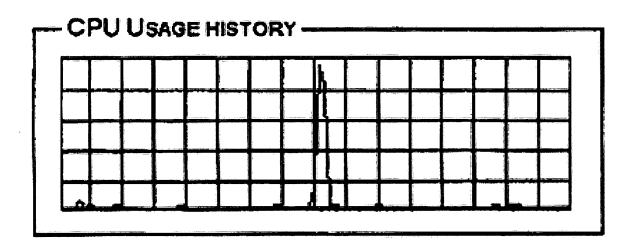
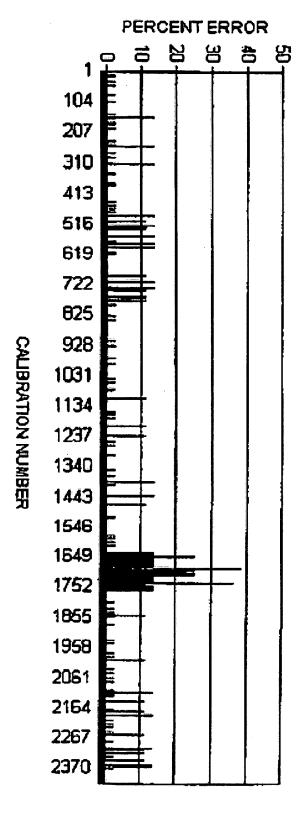
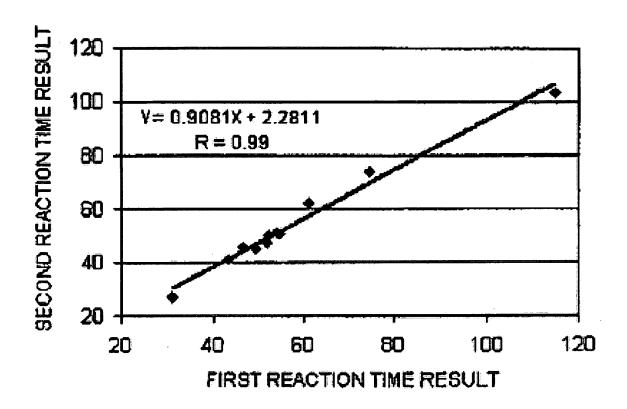


Appn No. 10/809,443 by R. J. MARTIN Filed March 25, 2004; Atty Dkt. 3427-101 REPLACEMENT PAGE 1 of 22







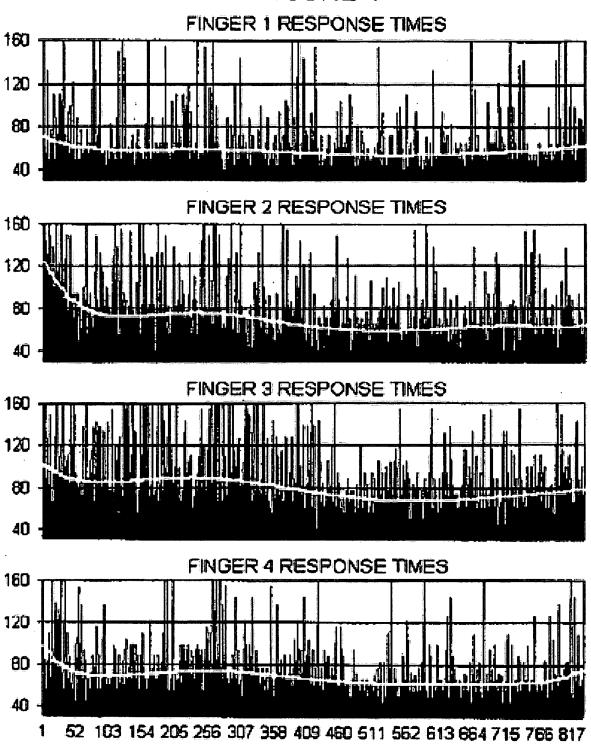


FIGURE 5: INSTRUCTIONS FOR PRE-CISE DECISION SPEED MEASUREMENT

- 1) DISPLAY INSTRUCTIONS, INCLUDING INSTRUC-TIONS TO RESPOND RAPIDLY ENOUGH SO THAT AT LEAST A MINIMUM NUMBER OF INCORRECT RESPON-SES (ERRORS) ARE MADE
- 2) COLLECT INFORMATION ABOUT HEALTH, DIET, MEDICATIONS, LIFE EVENTS AND ANY OTHER INFORMATION THAT MAY BE RELATED TO COGNITIVE PERFORMANCE OR HEALTH
 - 3) CACHE ALL POSSIBLE SIGNALS SO ANY SIGNAL CAN BE PRESENTED VIRTUALLY INSTANTLY
 - 4) SET ALL PARAMETERS TO INITIAL VALUES
 - 5) PROCESS PREVIOUSLY STORED INFORMATION FOR RAPID "ON THE FLY" COMPARISON WITH INFORMATION TO BE OBTAINED DURING THE PRESENT SESSION.

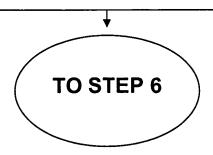


FIGURE 6A: WHEN BEGIN IS PRESSED

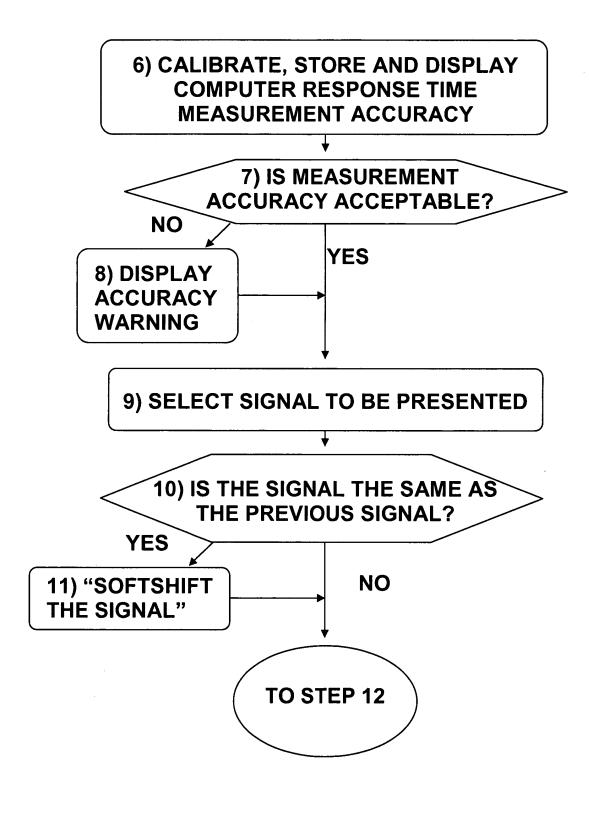


FIGURE 6A: WHEN BEGIN IS PRESSED

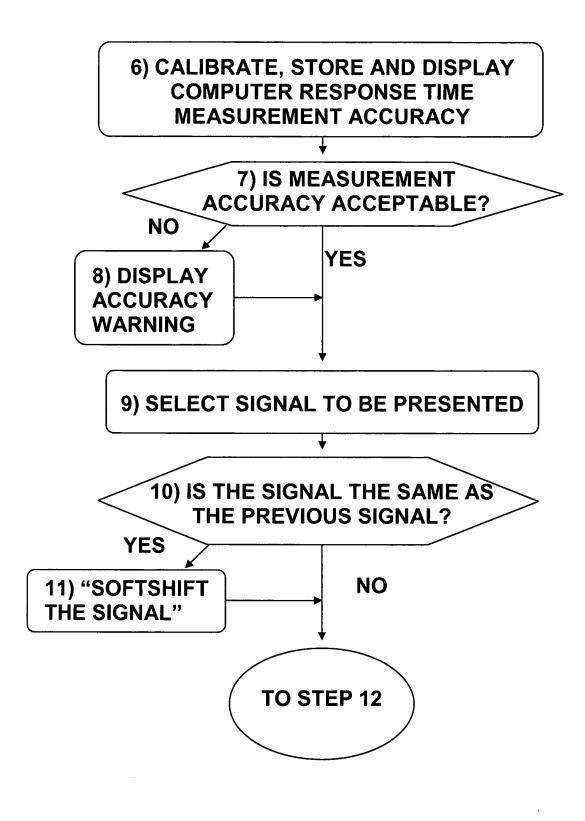


FIGURE 7A

17) WAIT FOR DELAY PERIOD TO ELAPSE

18) PRESENT SIGNAL

19) MEASURE START TIME

20) WAIT FOR RESPONSE

21) UPON KEYSTROKE OR CLICK, CAPTURE THE RESPONSE AND DETERMINE THE TIME

21) UPON KEYSTROKE OR CLICK, CAPTURE THE RESPONSE AND DETERMINE THE TIME OF THE RESPONSE AND THE TIME SINCE SIGNAL PRESENTATION

TO STEP 22

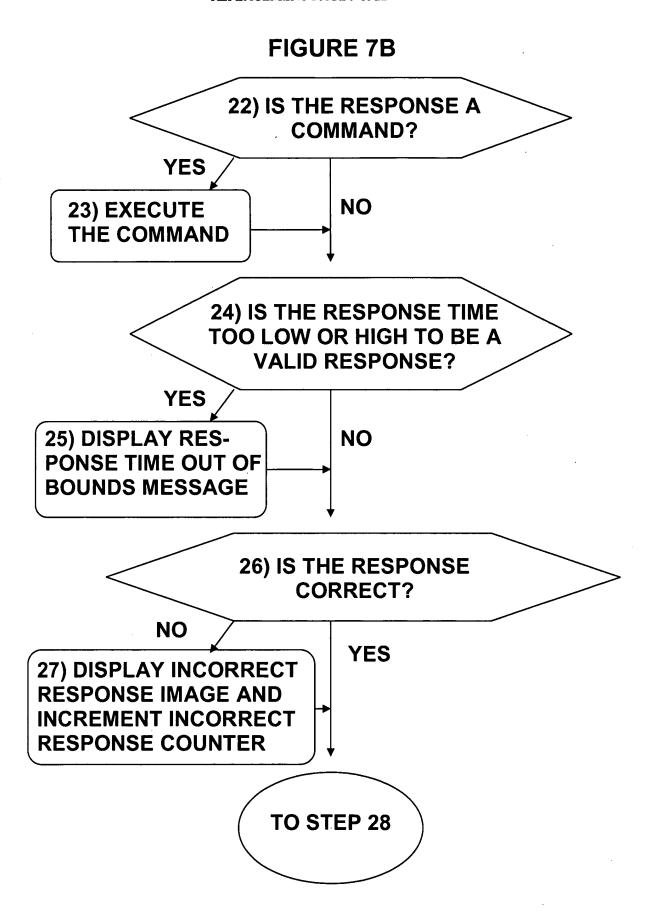
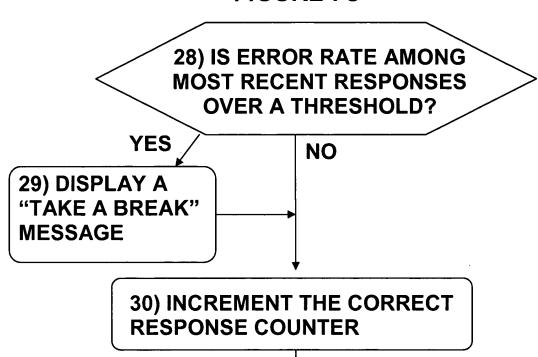


FIGURE 7C



31) COMPUTE AND DISPLAY RESPONSE TIME, RESPONSE TIME AVERAGE FOR CURRENT SERIES, ERROR TOTAL AND RATE FOR CURRENT SERIES, DIFFERENCE BETWEEN PREVIOUS AND CURRENT RESPONSE TIMES AND ERROR TOTALS AND RATES, AND AVERAGE MEASUREMENT ACCURACY FOR THE CURRENT SERIES AND DIFFERENCE BETWEEN CURRENT AND PREVIOUS ACCURACY RESULTS

TO STEP 32

FIGURE 7D

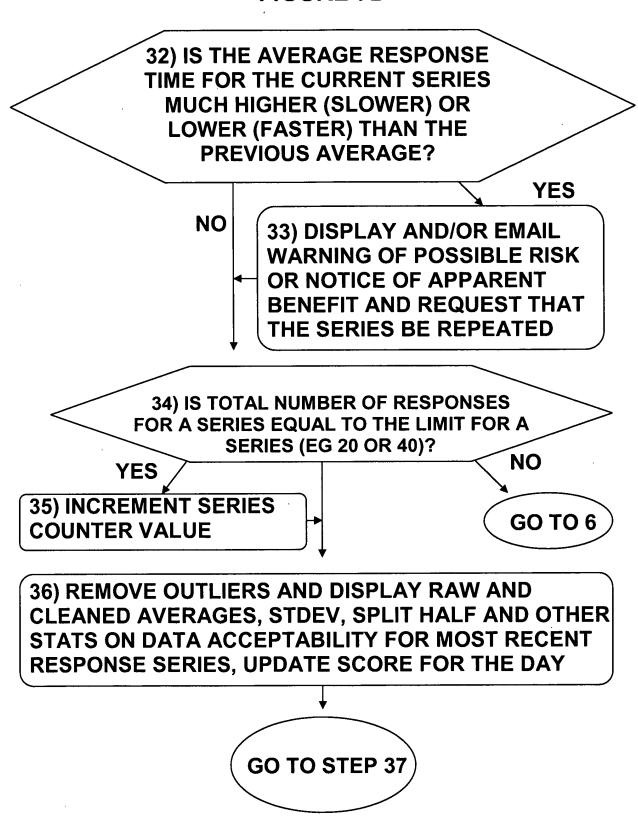


FIGURE 7E

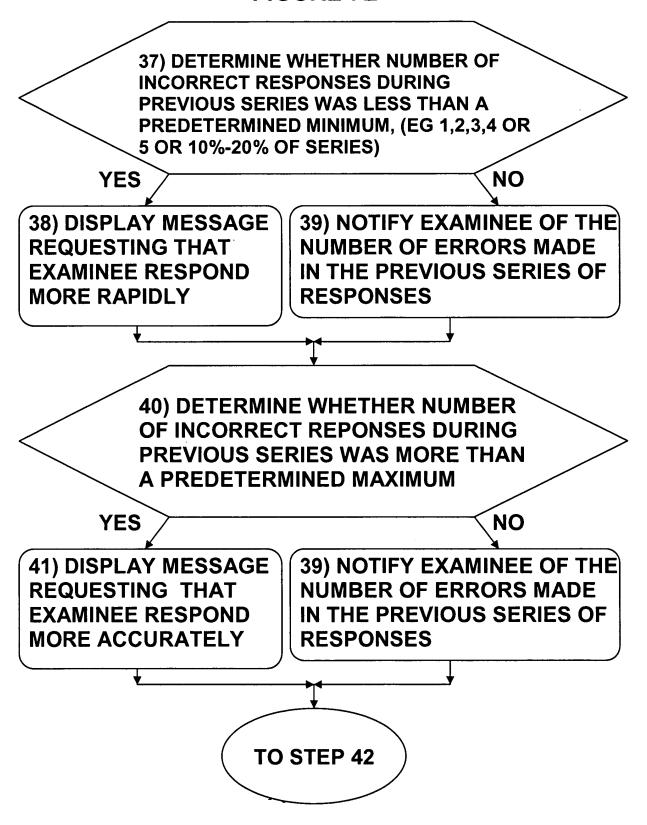


FIGURE 8A

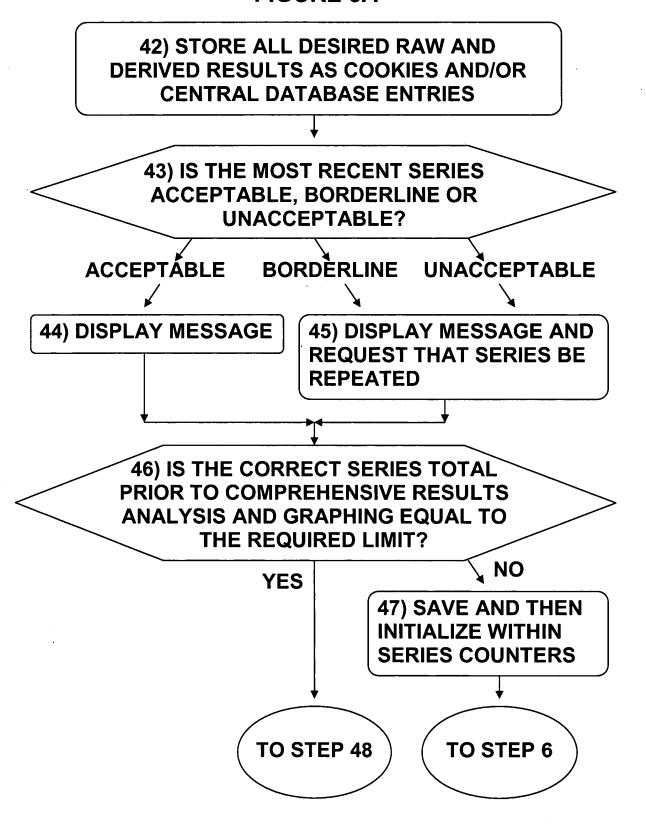


FIGURE 8B

48) DISPLAY GRAPH OF PREVIOUS AND LATEST RESPONSE TIME AND ERROR AND MEASUREMENT ACCURACY RESULTS ALONG WITH OTHER RECORDED INFORMATION ABOUT DIET, HEALTH AND LIFE EVENTS

49) DISPLAY STANDARD DEVIATION AND/OR OTHER **MEASURES OF VARIABILITY FOR MOST RECENT** RESPONSE AVERAGES 50) ARE MEASURES OF VARIABILITY AMONG RECENT RESPONSE **AVERAGES ACCEPTABLE?** YÉS MAYBE NO 51) DISPLAY MESSAGE **52) DISPLAY MESSAGE AND** REQUEST THAT SERIES BE REPEATED 53) ANALYZE PROBABILITY THAT MOST RECENT RESPONSE AVERAGES ARE SIGNIFICANTLY DIFFERENT FROM PREVIOUS AVERAGES TO STEP 54

FIGURE 8C

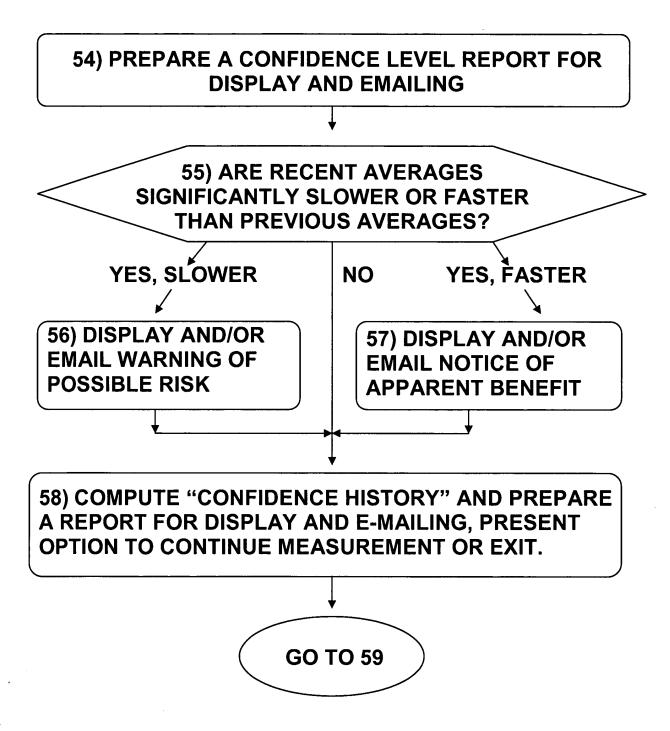


FIGURE 9A: OPTIMIZING HEALTH FACTORS

59) DISPLAY INSTRUCTIONS FOR GENERAL USE OF THE HEALTH & PERFORMANCE OPTIMIZATION WEB PAGE AND FOR DATA ENTRY. SUGGEST ANALYSES RELATED TO SPECIFIC HEALTH ISSUES LIKE DIABETES OR HEART IRREGULARITY AS WELL AS ATHLETIC AND COGNITIVE PERFORMANCE

60) DISPLAY SAMPLE DATA FOR PRACTICE WITH A CONCATENATED ENTRY LIKE ORANGE-JUICE

61) OFFER OPTIONS TO IDENTIFY HEALTH FACTORS BY BENEFITS OR HARM DURING THE SLICE OF TIME PRECEDING AND/OR FOLLOWING THEM: E.G. FOODS CONSUMED ON DAYS THAT WERE BETTER THAN PREVIOUS DAYS; OR FOODS CONSUMED ON ABOVE-AVERAGE DAYS EVEN IF THERE WAS NO IMPROVEMENT OVER THE PREVIOUS DAY; FOODS CONSUMED THE DAY BEFORE IMPROVEMENT OCCURRED; FOODS CONSUMED THE DAY BEFORE BETTER DAYS EVEN IF THERE WAS NO IMPROVEMENT OVER THE PREVIOUS DAY; FOODS CONSUMED TWO DAYS BEFORE IMPROVEMENT; FOODS CONSUMED ON THE DAY AFTER DAYS WHICH WERE BETTER THAN THE PREVIOUS DAY; OR A COMBINATION OF THESE TYPES OF TIME-SLICE ANALYSIS

GO TO 62

FIGURE 9B

- 62) RECORD WHICH TYPE OF TIME-SLICE ANALYSIS WAS REQUESTED BY THE USER
- 63) USER CLICKS TO BEGIN THE OPTIMIZATION OF EITHER HEALTH MEASURE 1 OR HEALTH MEASURE 2; CONDUCT THE ANALYSIS ACCORDING TO THE FOLLOWING STEPS
- 64) INITIALIZE VARIABLES TO REPRESENT THE DATE/TIME OF EACH PERFORMANCE MEASUREMENT OR HEALTH ASSESSMENT, ANY OBSERVED CHANGES, LISTS OF POTENTIAL HEALTH FACTORS ("PHFS"), AND DATES/TIMES OF HEALTH FACTOR INFLUENCE
- 65) COPY HEALTH AND PERFORMANCE DATA AND PHFS FROM USER ENTRY AREAS OR WEB PAGE DISPLAY AREAS INTO ARRAY VARIABLES
- 66) EXTRACT PHFS FROM SPACE-DELIMITED FACTOR LISTS (E.G. TEXT DESCRIPTIONS OF HEALTH FACTORS) BY REPEATEDLY COPYING USER-ENTERED TEXT UP TO THE NEXT SPACE-CHARACTER AND RECORDING EACH WORD INTO AN SEPARATE ARRAY THAT WILL BE PROCESSED LIKE A NEURAL NETWORK

GO TO 67

FIGURE 9C

67) COMPUTE HEALTH OR PERFORMANCE CHANGES ASSOCIATED WITH EACH TIME PERIOD (ACCORDING TO THE TYPE OF TIME-SLICE ANALYSIS REQUESTED) AND STORE CHANGES IN A SUITABLE ARRAY

68) TREAT EACH POTENTIAL HEALTH FACTOR ("PHF") LIKE A NERVE CELL THAT SUMS INPUT BY SUMMING THE PERFORMANCE CHANGES ASSOCIATED WITH EACH PHF AND STORE THE SUM IN A SUITABLE ARRAY, SO THAT EACH PHF (EACH WORD) HAS A NET PERFORMANCE CHANGE VALUE ASSOCIATED WITH IT THAT IS EQUAL TO THE SUM OF ALL CHANGES IN HEALTH OR PERFORMANCE ON THE DAY(S) BEFORE, DURING AND/OR AFTER PHF OCCURRENCE IN ACCORDANCE WITH THE REQUESTED TIME-SLICE ANALYSIS

69) PREVENT EXCESSIVE INFLUENCE BY SOME NERVE CELLS BY DIVIDING THE SUM OBTAINED IN STEP 68 ABOVE FOR EACH PHF BY THE NUMBER OF ITS OCCURRENCES IN THE ANALYZED DATA SET

70) SORT THE ORDER IN WHICH EACH PHF WILL BE DISPLAYED ACCORDING TO THE MAGNITUDE OF THE SUM ADJUSTED IN STEP 69 ABOVE

GO TO 71

FIGURE 9D

71) DISPLAY A LIST OF PHFS AND THE ADJUSTED NET PERFORMANCE CHANGE VALUE ASSOCIATED WITH EACH PHF IN SORTED ORDER

72) EXPLAIN THE SORTED LIST OF POTENTIAL HEALTH FACTORS BY FOR EXAMPLE INDICATING THAT "ITEMS LISTED FIRST APPEAR TO RAISE THE SELECTED HEALTH MEASURE" AND "ITEMS LISTED LAST APPEAR TO LOWER THE SELECTED HEALTH MEASURE"

73) OFFER THE OPTION OF EMAILING THE LIST TO ANY EMAIL ADDRESS ENTERED

74) CLOSE THE WINDOW DISPLAYING PHFS IN SORTED ORDER AND RETURN TO THE OPTIMIZATION WINDOW

75) TO FIND OTHER POTENTIALLY IMPORTANT HEALTH FACTORS, CONDUCT FOLLOW-UP ANALYSES ON THE SAME OR OTHER HEALTH OR PERFORMANCE MEASURES AFTER SELECTING DIFFERENT TIME-SLICE ANALYSIS OPTIONS

FIGURE 10: ENTRANCE PAGE LAYOUT

ENTRANCE PAGE BANNER

WELCOME PAGE

INPUT CODE NAME AND PASSWORD

QUESTIONS ABOUT HEALTH, SHARPNESS, FOODS, SUPPLEMENTS, AND MEDICATIONS EACH DAY THEN FILL THE INITIAL PAGE VIEW

OPTIMIZATION PAGE BUTTON

QUESTION ABOUT HEALTH CHANGES

HEART RATE

TEMPERATURE

DEC SPEED

RECALL

WORD RECLL

FIGURE 11: OPTIMIZATION PAGE LAYOUT

ENTRANCE PAGE BANNER

Health and Performance Optimization Page

WELCOMING TEXT APPEARS HERE – PLEASE SEE STEP 59 OF SPECIFICATION FOR DETAILS

TRY SAMPLE DATA

FORMAT INSTR

MAIN TEXT DATA DISPLAY AND INPUT TABLE OCCUPIES THE CENTER OF THE PAGE AND THE REMAINDER OF THE INITIAL PAGE VIEW. THIS TABLE HAS FOUR COLUMNS IN THE FOLLOWING ORDER: DAY OF WEEK, FOOD LIST, HEALTH MEASURE 1, HEALTH MEASURE 2.

RECALL DATA

CONTROL PANEL

OPTIMIZE MEASURE 1

OPTIMIZE MEASURE 2

SAVE DATA

CLEAR DATA

SEND RECOMMENDATIONS

FIGURE 12: ORDERED LIST OF FOODS PRODUCED BY THE OPTIMIZATION PAGE

THE SELECTED HEALTH MEASURE.

FOOD	RATING
OATMEAL	1.5
TEA	1.5
MILK	1
APPLES	0.85
BREAD	0.85
EGGS	0
ORANGE-JUICE	0

THE SELECTED HEALTH MEASURE.

SEND EMAIL COPY TO	
CLOSE WINDOW	